

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/10/97

Date Received: 10/03/97

Project: Metro Self Monitor, PO# M58592

Date Samples Extracted: 10/09/97

Date Extracts Analyzed: 10/09/97

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

**Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)**

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M58592	0.34	0.40	0.40	0.08
Method Blank	<0.05	<0.05	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS FOR
THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 710012-01 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.34	0.35	3	0-20
Copper	mg/L (ppm)	0.40	0.42	5	0-20
Nickel	mg/L (ppm)	0.40	0.45	12	0-20
Zinc	mg/L (ppm)	0.08	0.09	12a	0-20

Laboratory Code: 710012-01 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.34	94	98	80-120	4
Copper	mg/L (ppm)	5	0.40	94	98	80-120	4
Nickel	mg/L (ppm)	10	0.40	95	99	80-120	4
Zinc	mg/L (ppm)	5	0.08	96	101	80-120	5

Laboratory Code: LCS

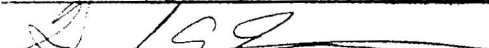
Analyte:	Reporting Units	Spike Level	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	100	103	80-120	3
Copper	mg/L (ppm)	5	102	105	80-120	3
Nickel	mg/L (ppm)	10	101	104	80-120	3
Zinc	mg/L (ppm)	5	102	104	80-120	2

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

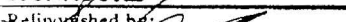

PJ# 71092-01

KNS AI
10.3.97
8:30A

Send Report To: Alaskan Copper Works Contact GERALD Thompson
Company 628 HANFORD ST
Address Seattle WA 98134
City, State, Zip (206) 382-8379 FAX # (206) 382-4309 Date 10-3-97
Phone #

SITE NO. 7238		PROJECT NAME METRO Self Monitor		PURCHASE ORDER # M 58592	
SAMPLERS (signature) 				PROJECT LOCATION 3200 6th Ave S.	
REMARKS				SAMPLE DISPOSAL INFORMATION <input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	G. W. Thompson	ACW	10/3/97	8:24 am
Received by: 	S. Ogorwa	F + B, Inc.	10/3/97	8:24
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

October 10, 1997

INVOICE #97ACU1010-4

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M58592: Results of testing requested
by Gerry Thompson for material submitted on October 3, 1997.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID #(b) (6)

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3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

October 10, 1997

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on October 3, 1997 from your Metro Self Monitor, PO# M58592 project.

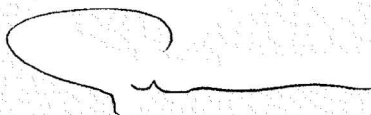
We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist



keh
Enclosures
ACU1010R.DOC